Practice with Speed and Velocity

1) $S = \frac{d}{t}$ (1)

$S = 55$ mi/hr

$d = 550$ mi

$t = ?$

$t = \frac{d}{S}$

$= \frac{550 \text{ mi}}{55 \text{ mi/hr}}$

$= 10$ hr (2) (1)

4) $\bar{v} = \frac{\bar{d}}{t}$ (1)

$\bar{d} = 275$ mi NW

$t = 11\text{am} - 5\text{am}$

$= 6$ hrs

$= \frac{275 \text{ mi NW}}{6 \text{ hr}}$

$= 45.8$ mi/hr NW (2) (1) (1)

6) $\bar{v} = \frac{\bar{d}}{t}$ $\bar{v} = 150\ km/hr$ TYFH

$\bar{d} = \bar{v}t$ $t = 2.5\ hr$

$= (150\ km/hr\ TYFH)(2.5\ hr)$

$= 375\ km\ TYFH$

Speed and Velocity Calculations

2) $\bar{v} = \frac{\bar{d}}{t}$

$= \frac{850 \text{ mi SW}}{9 \text{ hr}}$

$= 94.44 \text{ mi/hr SW}$

$\bar{v} = ?$

$\bar{d} = 850 \text{ mi SW}$

$t = 4\text{pm} - 7\text{am}$

$= 9 \text{ hr}$

4) $\bar{v} = \frac{\bar{d}}{t}$

$t = \frac{\bar{d}}{\bar{v}}$

$= \frac{219 \text{ m up}}{10 \text{ m/s up}}$

$= 21.9 \text{ s}$

$\bar{v} = 10 \text{ m/s up}$

$\bar{d} = 219 \text{ m up}$

$t = ?$

6) $\bar{v} = \frac{\bar{d}}{t}$

$\bar{d} = \bar{v}t$

$= (30 \text{ km/hr east})(2.5 \text{ hr})$

$= 75 \text{ km east}$

$\bar{v} = 30 \text{ km/hr east}$

$t = 2.5 \text{ hr}$

$\bar{d} = ?$